

1. An apparatus for generating phase conjugate light, comprising:
a polarization beam splitter having first to fourth ports, said first and second ports and said third and fourth ports being coupled to each other by a first polarization plane, said first and third ports and said second and fourth ports being coupled to each other by a second polarization plane perpendicular to the first polarization plane;
a nonlinear optical medium operatively connected between said second and third ports;
a pump light source for outputting pump light; and
coupling means for supplying signal light and the pump light to said first port of said polarization beam splitter,
said coupling means including an optical coupler having first and second input ports for receiving the signal light and the pump light, respectively, and an output port, and a polarization maintaining fiber operatively connected between said output port and said first port.

2. An apparatus according to claim 1, wherein
said polarization maintaining fiber has a principal axis set so that the polarization plane of the pump light at said first port is inclined substantially by 45 degrees with respect to the first and second polarization planes.

3. An apparatus according to claim 2, wherein
said polarization maintaining fiber comprises first and second polarization maintaining fibers connected to each other by splicing, and said first and second polarization maintaining fibers have first and second principal axes which extend perpendicularly to each other.